



# vet planet

Animal's health is our passion

# VetoMune 120 mg

## ❖ Indications:

The product helps to support the both humoral and cellular non-specific immunity in dogs and cats.

## ❖ Content:

- $\beta$ -1,3/1,6 – glucan, HMB

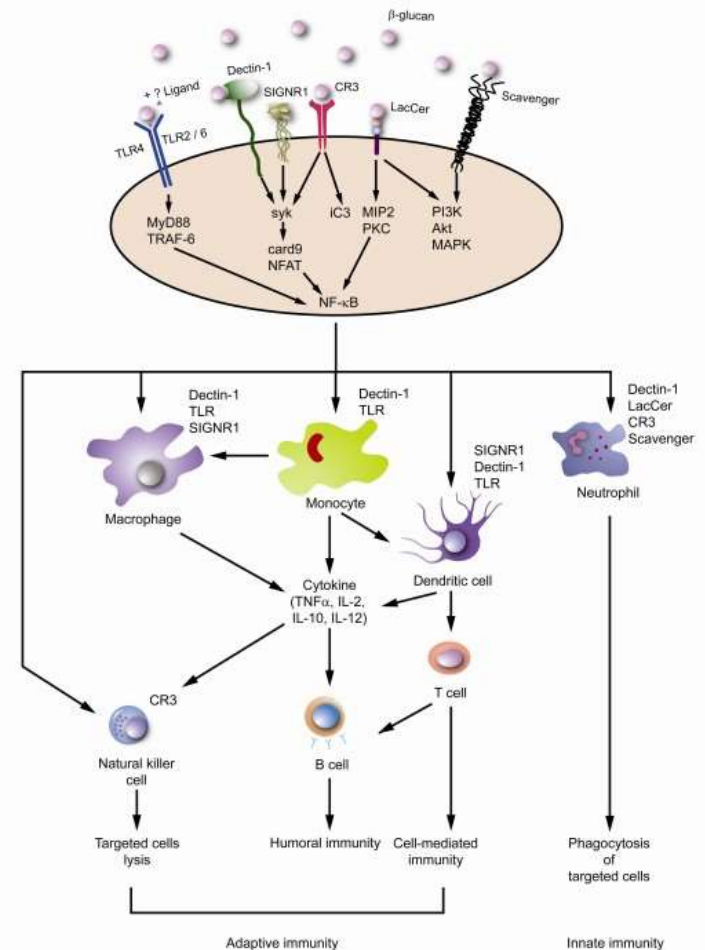
## ❖ Packing:

- 60 twist off /pack
- 20 packs/ box

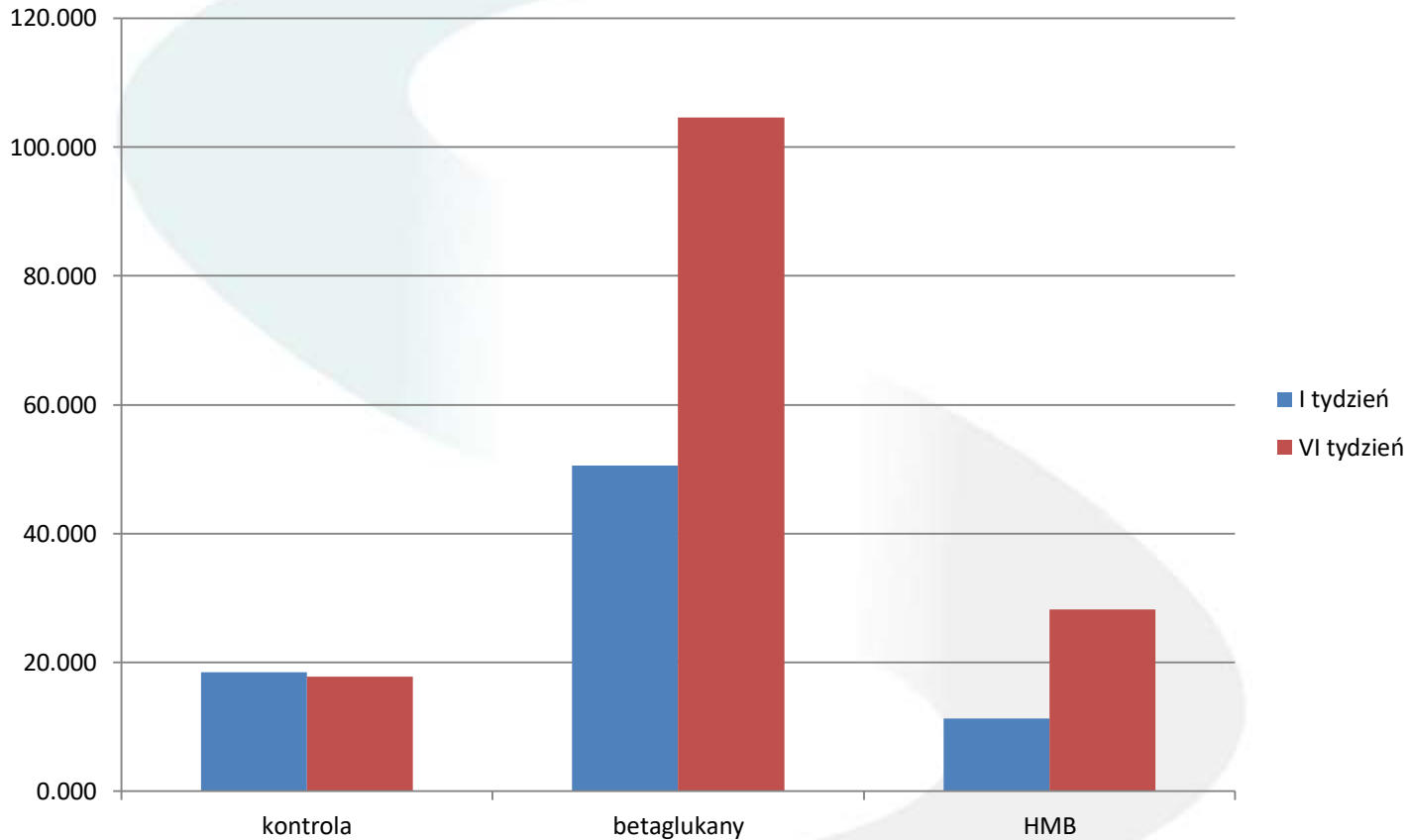


# Beta-glucan

- Glucans are polysaccharides occurring naturally in cell walls of many yeasts
- The most active ones are  $\beta$ -1,3/1,6-D-glucans which are non-soluble in water and are mainly isolated from *Saccharomyces cerevisiae*.
- Beta-glucan acts at the level of receptors – mainly through Dectin-1 receptor. It stimulates different pathways and target cells, namely monocytes, macrophages, dendritic cells NK cells and neutrophils. Stimulates both innate and acquired immunity (Chan i wsp., 2009)

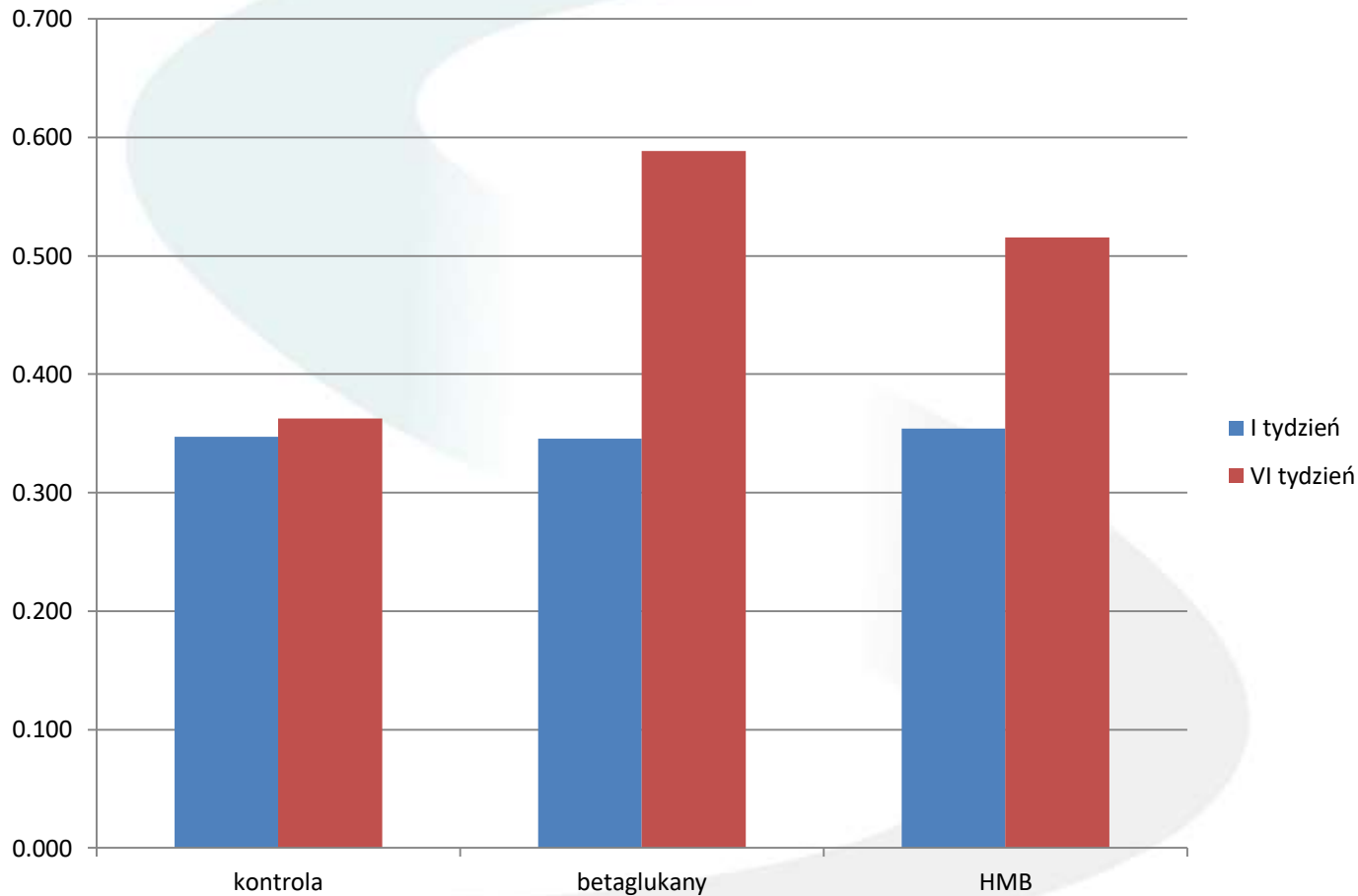


# Beta-glucan activity



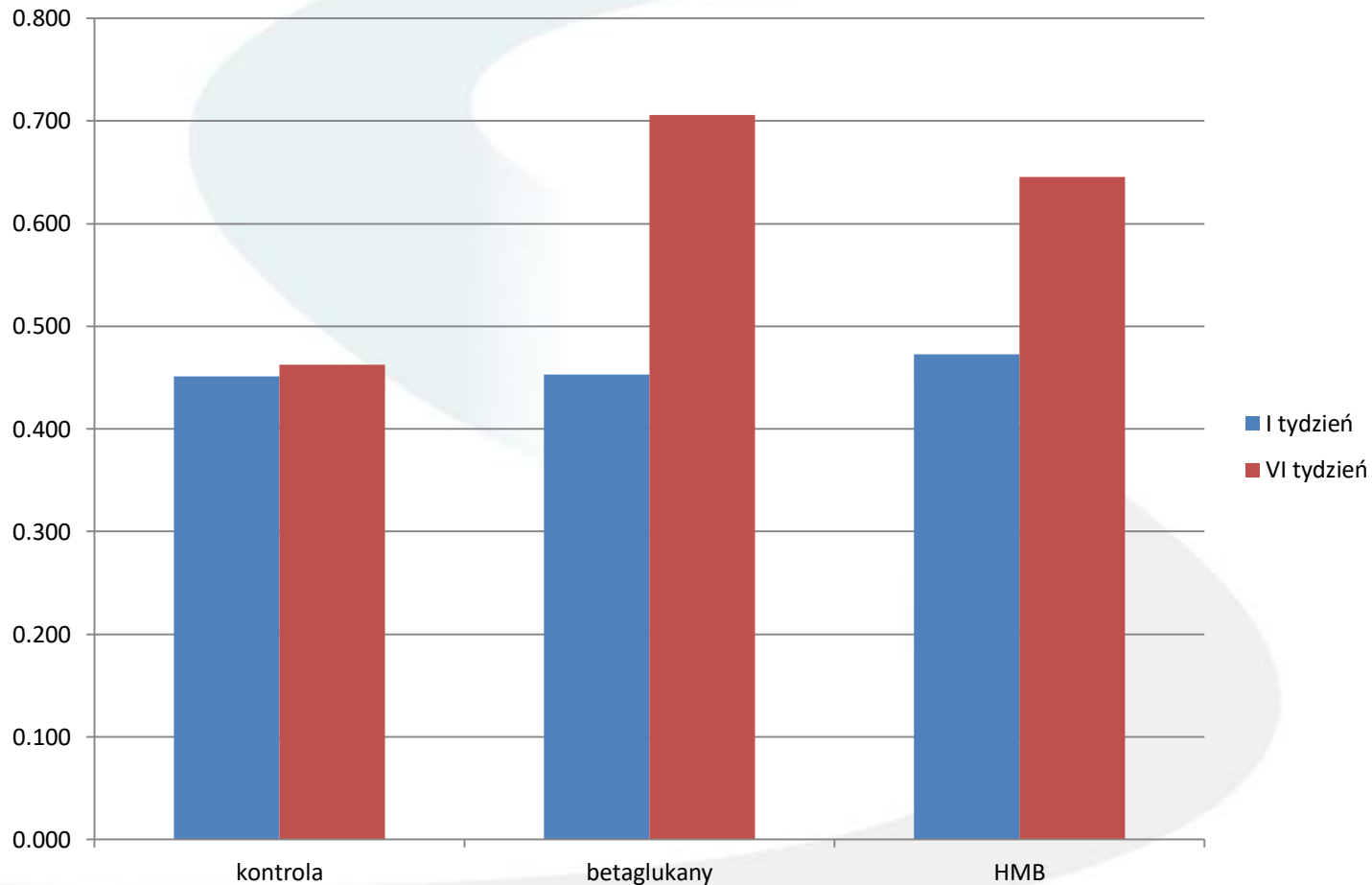
*The average level of anti-inflammatory cytokine IL-10 in dogs with chronic inflammatory bowel disease treated with beta-glucan and beta-hydroxy-beta-methylbutyrate as immunostimulants (Malewska, 2011)*

# Beta-glucan activity



*Intracellular killing activity of phagocytes dogs with chronic inflammatory bowel disease treated with beta-glucan and beta-hydroxy-beta-methylbutyrate as immunostimulants (Malewska, 2011)*

# Beta-glucan activity

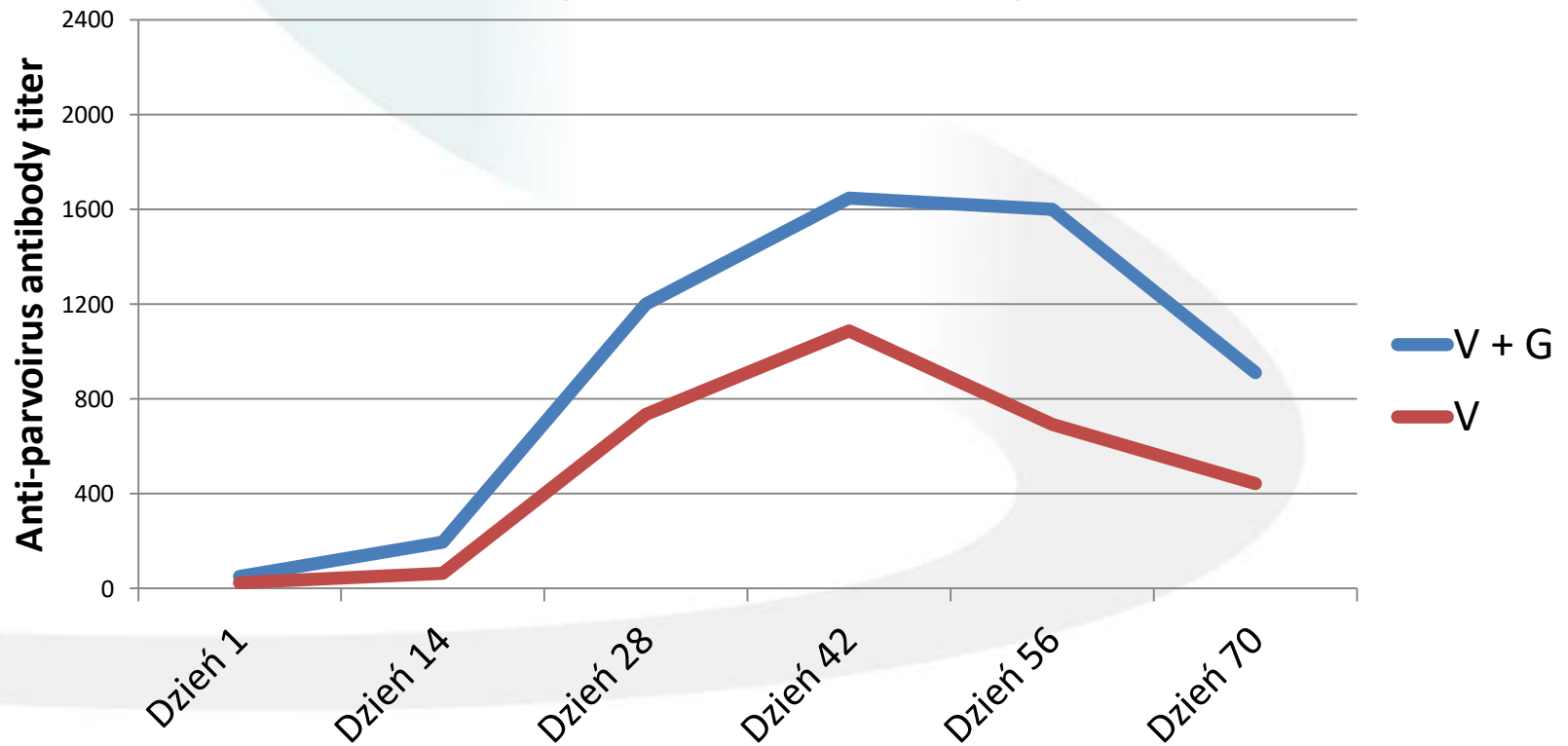


*Proliferative activity of blood lymphocytes stimulated with LPS in dogs with chronic inflammatory bowel disease treated with beta-glucan and beta-hydroxy-beta-methylbutyrate as immunostimulants (Malewska, 2011)*

# IMMUNOMODULATORY EFFECT OF GLUCAN ON SPECIFIC AND NONSPECIFIC IMMUNITY AFTER VACCINATION IN PUPPIES

Haladova E., Mojziso J., Smrco P., Ondrejko A., Vojtek B., Prokes M., Petrova E.  
(2011)

## Anti-parvovirus antibody



Protective level = 64

# Beta-hydroxy-beta-methylbutyrate

- Organic compound produced naturally as a product of leucine metabolism
- HMB, similarly to butyrate, increases the growth of intestinal villi and is a source of energy for enterocytes
- Could stimulate immune system through:
  - Stimulation of metabolic activity of phagocytes
  - Stimulation of B- and T-cells proliferation
  - Increases the number of antibody producing cells
  - Stimulates phagocytosis of monoclonal and polyclonal antibodies





# Vetomune

## **NUTRITIONAL PURPOSE**

- The product helps to support the both humoral and cellular non-specific immunity in dogs and cats.

## **Content:**

- $\beta$ -1,3/1,6 – glucan, HMB

## **Key benefits:**

- Contains ingredients with scientifically proven immunomodulatory action – beta-glucan and 3-hydroxy-3-methylbutyrate
- Stimulates both humoral and cellular immunity
- Could be effectively used during the period of vaccination or after periods of enhanced stress
- For periodic administration in growing animals in order to stimulate immune system development
- High purity beta-glucan inside
- Product produced in factory fulfilling Good Manufacturing Practice requirements – the highest quality standards in pharmacy